



## DEPARTMENT OF JUSTICE

### Drug Enforcement Administration

#### 21 CFR Part 1308

[Docket No. DEA-1036]

### Schedules of Controlled Substances: Placement of Nine Specific Fentanyl-Related Substances in Schedule I

**AGENCY:** Drug Enforcement Administration, Department of Justice.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Drug Enforcement Administration proposes placing nine substances, as identified in this proposed rule, in schedule I of the Controlled Substances Act. These nine substances fall within the definition of fentanyl-related substances set forth in the February 6, 2018, temporary scheduling order. Through the Temporary Reauthorization and Study of Emergency Scheduling of Fentanyl Analogues Act, which became law on February 6, 2020, Congress extended the temporary control of fentanyl-related substances until May 6, 2021. This temporary order was subsequently extended multiple times, most recently on December 29, 2022, through the Consolidated Appropriations Act, 2023, which extended the order until December 31, 2024. If finalized, this action would make permanent the existing regulatory controls and administrative, civil, and criminal sanctions applicable to schedule I controlled substances on persons who handle (manufacture, distribute, import, export, engage in research, conduct instructional activities or chemical analysis, or possess), or propose to handle these nine specific controlled substances.

**DATES:** Comments must be submitted electronically or postmarked on or before [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

Interested persons may file a request for a hearing or waiver of hearing pursuant to 21 CFR 1308.44 and in accordance with 21 CFR 1316.47 and/or 1316.49, as applicable. Requests for a hearing, and waivers of an opportunity for a hearing or to participate in a hearing, must be received on or before [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Interested persons may file written comments on this proposal in accordance with 21 CFR 1308.43(g). The electronic Federal Docket Management System will not accept comments after 11:59 p.m. Eastern Time on the last day of the comment period. To ensure proper handling of comments, please reference “Docket No. DEA-1036” on all electronic and written correspondence, including any attachments.

- *Electronic comments:* The Drug Enforcement Administration (DEA) encourages commenters to submit all comments electronically through the Federal eRulemaking Portal which provides the ability to type short comments directly into the comment field on the Web page or to attach a file for lengthier comments. Please go to <https://www.regulations.gov> and follow the online instructions at that site for submitting comments. Upon completion of your submission you will receive a Comment Tracking Number for your comment. Submitted comments are not instantaneously available for public view on Regulations.gov. If you have received a Comment Tracking Number, your comment has been successfully submitted and there is no need to resubmit the same comment.

- *Paper comments:* Paper comments that duplicate electronic submissions are not necessary. Should you wish to mail a paper comment *in lieu of* an electronic comment, it should be sent via regular or express mail to: Drug Enforcement Administration, Attn: DEA Federal Register Representative/DPW, 8701 Morrissette Drive, Springfield, Virginia 22152.

- *Hearing requests:* All requests for a hearing and waivers of participation, together with a written statement of position on the matters of fact and law asserted in the hearing, must be filed with the DEA Administrator, who will make the determination of whether a hearing will be needed to address such matters of fact and law in the rulemaking. Such requests must be sent to: Drug Enforcement Administration, Attn: Administrator, 8701 Morrissette Drive, Springfield, Virginia 22152. For informational purposes, a courtesy copy of requests for hearing and waivers of participation should also be sent to: (1) Drug Enforcement Administration, Attn: Hearing Clerk/OALJ, 8701 Morrissette Drive, Springfield, Virginia 22152; and (2) Drug Enforcement Administration, Attn: DEA Federal Register Representative/DPW, 8701 Morrissette Drive, Springfield, Virginia 22152.

**FOR FURTHER INFORMATION CONTACT:** Dr. Terrence L. Boos, Drug and Chemical Evaluation Section, Diversion Control Division, Drug Enforcement Administration; Telephone: (571) 362-3249.

**SUPPLEMENTARY INFORMATION:** In this proposed rule, the Drug Enforcement Administration (DEA) proposes to permanently schedule the following nine controlled substances in schedule I of the Controlled Substances Act (CSA), including their isomers, esters, ethers, salts, and salts of isomers, esters, and ethers whenever the existence of such isomers, esters, ethers, and salts is possible within the specific chemical designation:

- *meta*-fluorofentanyl (*N*-(3-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)propionamide),
- *meta*-fluoroisobutyryl fentanyl (*N*-(3-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)isobutyramide),
- *para*-methoxyfuranyl fentanyl (*N*-(4-methoxyphenyl)-*N*-(1-phenethylpiperidin-4-yl)furan-2-carboxamide),

- 3-furanyl fentanyl (*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylfuran-3-carboxamide),
- 2',5'-dimethoxyfentanyl (*N*-(1-(2,5-dimethoxyphenethyl)piperidin-4-yl)-*N*-phenylpropionamide),
- isovaleryl fentanyl (3-methyl-*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylbutanamide),
- *ortho*-fluorofuranyl fentanyl (*N*-(2-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)furan-2-carboxamide),
- *alpha'*-methyl butyryl fentanyl (2-methyl-*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylbutanamide),
- and *para*-methylcyclopropyl fentanyl (*N*-(4-methylphenyl)-*N*-(1-phenethylpiperidin-4-yl)cyclopropanecarboxamide)

### **Posting of Public Comments**

All comments received in response to this docket are considered part of the public record. DEA will make comments available for public inspection online at <https://www.regulations.gov>, unless reasonable cause is given. Such information includes personal identifying information (such as your name, address, etc.) voluntarily submitted by the commenter. The Freedom of Information Act applies to all comments received. If you want to submit personal identifying information (such as your name, address, etc.) as part of your comment, but do not want DEA to make it publicly available, you must include the phrase “PERSONAL IDENTIFYING INFORMATION” in the first paragraph of your comment. You must also place all of the personal identifying information you do not want made publicly available in the first paragraph of your comment and identify what information you want redacted.

If you want to submit confidential business information as part of your comment, but do not want DEA to make it publicly available, you must include the phrase

“CONFIDENTIAL BUSINESS INFORMATION” in the first paragraph of your comment. You must also prominently identify confidential business information to be redacted within the comment.

DEA will generally make publicly available in redacted from comments containing personal identifying information and confidential business information identified as directed above. If a comment has so much confidential business information or personal identifying information that DEA cannot redact it effectively, DEA may not make all or part of that comment publicly available. Comments posted to <https://www.regulations.gov> may include any personal identifying information (such as name, address, and phone number) included in the text of your electronic submission that is not identified as confidential as directed above.

An electronic copy of this document and supplemental information to this proposed rule are available at <https://www.regulations.gov> for easy reference.

#### **Request for Hearing or Appearance; Waiver**

Pursuant to 21 U.S.C. 811(a), this action is a formal rulemaking “on the record after opportunity for a hearing.” Such proceedings are conducted pursuant to the provisions of the Administrative Procedure Act (APA), 5 U.S.C. 551–559. 21 CFR 1308.41–1308.45; 21 CFR part 1316, subpart D. Interested persons, as defined in 21 CFR 1300.01(b), may file requests for a hearing in conformity with the requirements of 21 CFR 1308.44(a) and 1316.47(a), and such requests must:

- (1) state with particularity the interest of the person in the proceeding;
- (2) state with particularity the objections or issues concerning which the person desires to be heard; and
- (3) state briefly the position of the person with regarding to the objections or issues.

Any interested person may file a waiver of an opportunity for a hearing or to participate in a hearing in conformity with the requirements of 21 CFR 1308.44(c), together with a written statement of position on the matters of fact and law involved in any hearing. 21 CFR 1316.49.

All requests for a hearing and waivers of participation, together with a written statement of position on the matters of fact and law involved in such hearing, must be sent to DEA using the address information provided above. The decision whether a hearing will be needed to address such matters of fact and law in the rulemaking will be made by the Administrator. If a hearing is needed, DEA will publish a notice of hearing on the proposed rulemaking in the Federal Register. 21 CFR 1308.44(b), 1316.53.

Further, once the Administrator determines a hearing is needed to address such matters of fact and law in rulemaking, she will then designate an Administrative Law Judge (ALJ) to preside over the hearing. The ALJ's functions shall only commence upon designation, as provided in 21 CFR 1316.52.

In accordance with 21 U.S.C. 811 and 812, the purpose of a hearing would be to determine whether *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and/or *para*-methylcyclopropyl fentanyl meet the statutory criteria for placement in schedule I.

### **Legal Authority**

The CSA provides that proceedings for the issuance, amendment, or repeal of the scheduling of any drug or other substance may be initiated by the Attorney General (delegated to the Administrator of DEA pursuant to 28 CFR 0.100) on his own motion.<sup>1</sup> This proposed action is supported by a recommendation from the Assistant Secretary for Health of the Department of Health and Human Services (Assistant Secretary for HHS or

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<sup>1</sup> 21 U.S.C. 811(a).

Assistant Secretary) and an evaluation of all other relevant data by DEA. If finalized, this action would make permanent the existing temporary regulatory controls and administrative, civil, and criminal sanctions of schedule I controlled substances on any person who handles or proposes to handle these nine substances.

## **Background**

On February 6, 2018, pursuant to 21 U.S.C. 811(h)(1), DEA published an order in the Federal Register (83 FR 5188) temporarily placing fentanyl-related substances, as defined in that order, in schedule I of the CSA based upon a finding that these substances pose an imminent hazard to the public safety. As discussed below in Factor 3, the nine substances named in this proposed rule meet the existing definition of fentanyl-related substances as they are not otherwise controlled in any other schedule (i.e., not included under another DEA Controlled Substance Code Number) and are structurally related to fentanyl by one or more of the five modifications listed under the definition. That temporary order was effective upon the date of publication. Pursuant to 21 U.S.C. 811(h)(2), the temporary control of fentanyl-related substances, a class of substances as defined in the order, as well as the nine specific substances already covered by that order, was set to expire on February 6, 2020. However, on February 6, 2020, as explained in DEA's April 10, 2020, correcting amendment (85 FR 20155), Congress extended that expiration date until May 6, 2021, by enacting the Temporary Reauthorization and Study of the Emergency Scheduling of Fentanyl Analogues Act (Pub. L. 116-114, sec. 2, 134 Stat. 103). This temporary order was subsequently extended multiple times, most recently on December 29, 2022, through the Consolidated Appropriations Act, 2023,<sup>2</sup> which extended the order until December 31, 2024. Consequently, the temporary control of these nine substances will remain in effect until December 31, 2024, unless DEA permanently places them in schedule I prior to that date.

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<sup>2</sup> Pub. L. 117-328, Division O, Title VI, Sec. 601.

Therefore, the Administrator, on her own motion pursuant to 21 U.S.C. 811(a), is initiating proceedings to permanently schedule *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl. DEA gathered and reviewed the available information regarding the pharmacology, chemistry, trafficking, actual abuse, pattern of abuse, and the relative potential for abuse for these substances. On October 12, 2021, in accordance with 21 U.S.C. 811(b), the Administrator submitted a request to the Assistant Secretary to provide DEA with a scientific and medical evaluation of available information and a scheduling recommendation for these nine substances.

On May 16, 2022, the Assistant Secretary submitted HHS's scientific and medical evaluation and scheduling recommendation for *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl and their salts to the Administrator. In accordance with 21 U.S.C. 811(c), upon receipt of the scientific and medical evaluation and scheduling recommendation from HHS, DEA reviewed the documents and all other relevant data, and conducted its own eight-factor analysis of the abuse potential of these nine substances.

### **Proposed Determination to Permanently Schedule Nine Specific Fentanyl-Related Substances**

As discussed in the background section, the Administrator is initiating proceedings, pursuant to 21 U.S.C. 811(a), to permanently add *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl to schedule I. DEA reviewed the

scientific and medical evaluation, scheduling recommendation received from HHS, and all other relevant data and conducted its own eight-factor analysis of the abuse potential of these nine substances pursuant to 21 U.S.C. 811(c). Included below is a brief summary of each factor as analyzed by HHS and DEA, and as considered by DEA in its proposed scheduling action. Please note that both DEA and HHS analyses are available in their entirety under “Supporting Documents” of the public docket for this proposed rule at <https://www.regulations.gov> under Docket Number “DEA-1036.”

1. *The Drug’s Actual or Relative Potential for Abuse*

The term “abuse” is not defined in the CSA. However, the legislative history of the CSA<sup>3</sup> suggests that DEA consider the following criteria when determining whether a particular drug or substance has a potential for abuse:

- a) *There is evidence that individuals are taking the drug or drugs containing such a substance in amounts sufficient to create a hazard to their health or to the safety of other individuals or to the community; or*
- b) *There is significant diversion of the drug or drugs containing such a substance from legitimate drug channels; or*
- c) *Individuals are taking the drug or drugs containing such a substance on their own initiative rather than on the basis of medical advice from a practitioner licensed by law to administer such drugs in the course of his professional practice; or*
- d) *The drug or drugs containing such a substance are new drugs so related in their action to a drug or drugs already listed as having a potential for abuse to make it likely that the drug will have the same potentiality for abuse as such drugs, thus making it reasonable to assume that there may be significant diversions from legitimate channels, significant use contrary to or without medical advice, or that it has a substantial capability of creating hazards to the health of the user or to the safety of the community.*

The abuse potential of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl,

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<sup>3</sup> Comprehensive Drug Abuse Prevention and Control Act of 1970, H.R. Rep. No. 91-1444, 91st Cong., Sess. 1 (1970); reprinted in 1970 U.S.C.C.A.N. 4566, 4603.

*ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl is associated with their pharmacological similarity to other schedule I and II mu-opioid receptor agonist substances which have a high potential for abuse. Similar to schedule II substances morphine and fentanyl and several schedule I opioid substances that are structurally related to fentanyl, these nine substances have been shown to bind and act as mu-opioid receptor agonists.

*meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl have no approved medical use in the United States and have been encountered on the illicit drug market. Because these nine substances are not Food and Drug Administration (FDA)-approved drug products, a practitioner may not legally prescribe them and these substances cannot be dispensed to an individual. Accordingly, the use of these nine substances without medical advice leads to the conclusion that they are abused for their opioid-like properties. There are no legitimate channels for these nine substances to be marketed as FDA-approved drug products, but they are available for purchase from legitimate chemical companies to be used in scientific research. However, despite the limited legitimate use of these substances, reports from public health and law enforcement indicate that *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are being abused and taken in amounts sufficient to create a hazard to an individual's health. Data from forensic databases can be used as an indicator of illicit activity with drugs and abuse<sup>4</sup> within the United States. According to drug

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<sup>4</sup> While law enforcement data is not direct evidence of abuse, it can lead to an inference that a drug has been diverted and abused. See 76 FR 77330, 77332, Dec. 12, 2011.

seizure data from 2016 to 2021 from the National Forensic Laboratory Information System (NFLIS),<sup>5</sup> seven of the substances (*meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, and *alpha'*-methyl butyryl fentanyl) are being encountered in the United States. Two substances (2',5'-dimethoxyfentanyl and *para*-methylcyclopropyl fentanyl) were not listed in the NFLIS database, however, reporting from NMS labs<sup>6</sup> in 2019 show that 2',5'-dimethoxyfentanyl and *para*-methylcyclopropyl fentanyl have been positively identified in drugs seized by the Department of Homeland Security. Consequently, the positive identification of the nine substances in law enforcement encounters indicates that these substances are being abused, and thus pose safety hazards to the health of users.

## 2. *Scientific Evidence of the Drug's Pharmacological Effects, if Known*

*meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are pharmacologically similar to other schedule I and schedule II mu-opioid receptor agonist substances. Non-clinical and clinical studies conducted on abuse potential of mu-opioid receptor agonists such as morphine and fentanyl indicate that these substances share discriminative stimulus effects and have reinforcing properties. Similar to schedule I and II opioid analgesics, these nine substances bind to and activate the mu-opioid receptor. Additionally, behavioral studies in animals demonstrate that *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl

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<sup>5</sup> NFLIS is a DEA program and a national forensic laboratory reporting system that systematically collects results from drug chemistry analyses conducted by state and local forensic laboratories in the United States. The NFLIS database also contains Federal data from U.S. Customs and Border Protection (CBP). NFLIS only includes drug chemistry results from completed analyses. NFLIS data were queried July 18, 2022. NFLIS is still reporting data from 2021 due to normal lag time in reporting.

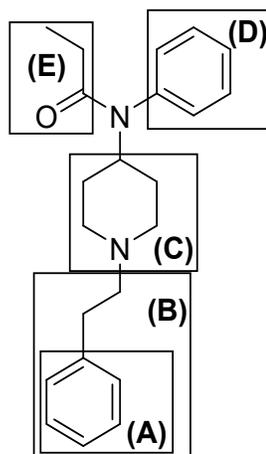
<sup>6</sup> NMS Labs is an independent provider of professional laboratory testing services, specializing in clinical toxicology and forensic science.

fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl produce analgesic effects similar to fentanyl and morphine. Further, pre-treatment with naltrexone, an opioid antagonist, attenuated analgesic effects of these nine substances as well as morphine. Thus, it is concluded from *in vitro* and *in vivo* pharmacological studies that the effects of these nine substances are similar to that of fentanyl and morphine and mediated by mu-opioid receptor agonism.

### 3. *The State of Current Scientific Knowledge Regarding the Drug or Other Substance*

*meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are synthetic opioids in the 4-anilidopiperidine structural class which includes fentanyl. As defined in the February 6, 2018, temporary order, fentanyl-related substances include any substance not otherwise controlled in any schedule (*i.e.*, not included under any other Administration Controlled Substance Code Number) that is structurally related to fentanyl by one or more of the following modifications:

- (A) Replacement of the phenyl portion of the phenethyl group by any monocycle, whether or not further substituted in or on the monocycle;
- (B) substitution in or on the phenethyl group with alkyl, alkenyl, alkoxy, hydroxyl, halo, haloalkyl, amino or nitro groups;
- (C) substitution in or on the piperidine ring with alkyl, alkenyl, alkoxy, ester, ether, hydroxyl, halo, haloalkyl, amino or nitro groups;
- (D) replacement of the aniline ring with any aromatic monocycle whether or not further substituted in or on the aromatic monocycle; and/or
- (E) replacement of the *N*-propionyl group by another acyl group.



**Figure 1: Regions of the chemical structure of fentanyl described in the definition of a fentanyl-related substance**

According to the February 6, 2018, temporary scheduling order, the existence of a substance with any one, or any combination, of above-mentioned modifications (see Figure 1) would meet the structural requirements of the definition of fentanyl-related substances. The present nine substances fall within the definition of fentanyl-related substances by the following modifications:

1. *meta*-fluorofentanyl: substitution on the aniline ring (meets definition for modification D);
2. *meta*-fluoroisobutyryl fentanyl: substitution on the aniline ring and replacement of the *N*-propionyl group with another acyl group (meets definition for modifications D and E);
3. *para*-methoxyfentanyl: substitution on the aniline ring and replacement of the *N*-propionyl group with another acyl group (meets definition for modifications D and E);
4. 3-furanyl fentanyl: replacement of the *N*-propionyl group with another acyl group (meets definition for modification E);
5. 2',5'-dimethoxyfentanyl: substitution on the phenethyl group with alkoxy groups (meets definition for modification B);
6. isovaleryl fentanyl: replacement of the *N*-propionyl group with another acyl group (meets definition for modification E);

7. *ortho*-fluorofuranyl fentanyl: substitution on the aniline ring and replacement of the *N*-propionyl group with another acyl group (meets definition for modifications D and E);
8. *alpha'*-methyl butyryl fentanyl: replacement of the *N*-propionyl group with another acyl group (meets definition for modification E);
9. *para*-methylcyclopropyl fentanyl: substitution on the aniline ring and replacement of the *N*-propionyl group with another acyl group (meets definition for modifications D and E);

No study has been undertaken to evaluate the efficacy, toxicology, and safety of the nine substances in humans. It can be inferred from data obtained from animal studies that these nine substances have sufficient distribution to the brain to produce depressant effects similar to that of mu opioid receptor agonists.

There are no FDA-approved marketing applications for drug products containing *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl for any therapeutic indication in the United States. Moreover, there are no clinical studies or petitioners which have claimed an accepted medical use in the United States for these substances.

#### 4. *Its History and Current Pattern of Abuse*

Evidence suggests that the pattern of abuse of *meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl parallels that of prescription opioid analgesics. Currently, the United States is in the midst of an illicit opioid abuse epidemic. There has been a marked increase in the encounters of synthetic opioids that are structurally related to fentanyl that parallels to an increase in deaths related to

synthetic opioids. Thus, the recreational abuse of fentanyl-like substances continues to be a significant concern. These substances are distributed to users, often with unpredictable outcomes. According to HHS, the Centers for Disease Control and Prevention (CDC) reported there were over 68,000 deaths in 2020 associated with the use of opioids other than methadone, but including fentanyl and fentanyl-related substances (HHS, 2022).

Law enforcement encountered these nine substances in the United States. According to the NFLIS<sup>7</sup> database, 49 reports were registered containing seven of the substances (*meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, or *alpha*'-methyl butyryl fentanyl) from state or local forensic laboratories from 2016 to 2021. Two substances (2',5'-dimethoxyfentanyl and *para*-methylcyclopropyl fentanyl) were not listed in the NFLIS database, however, reporting from NMS labs in 2019 show that 2',5'-dimethoxyfentanyl and *para*-methylcyclopropyl fentanyl have been positively identified in seized drugs encountered by the Department of Homeland Security.

##### 5. *The Scope, Duration, and Significance of Abuse*

Similar to other substances structurally related to fentanyl, *meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are often used as recreational drugs. The recreational use of these nine substances and other fentanyl-related substances continues to be of significant concern in the United States. These substances are distributed to users often with unpredictable outcomes.

DEA notes that the data from pharmacological testing of *meta*-fluorofentanyl,

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<sup>7</sup> NFLIS data were queried July 18, 2022. NFLIS data reporting is still pending for 2021 due to normal lag time.

*meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are consistent with those of other opioids such as fentanyl and other related opioid agonists. Thus, it can be inferred the abuse potential of these substances is similar to mu opioid receptor agonists such as fentanyl and morphine.

#### 6. *What, if Any, Risk There is to the Public Health*

The abuse of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl leads to the same qualitative public health risks as heroin, fentanyl, and other opioid analgesic substances. Further, abusers of these substances may not know the origin, identity, or purity of these substances. This unknown information poses significant adverse health risks when compared to abuse of pharmaceutical preparations of opioid analgesics, such as morphine and oxycodone. Taken together, evidence suggests that individuals experimenting with substances with unknown potency are at high risk of adverse health outcomes.

#### 7. *Its Psychic or Physiological Dependence Liability*

There are no pre-clinical or clinical studies that have evaluated the psychic or physiologic dependence of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl. Several studies have shown that due to fentanyl's short duration of action, more frequent dosing is often required which can lead to a fast induction of tolerance, dependence, and opiate withdrawal syndrome. Opioid withdrawal includes nausea and vomiting, depression, agitation, anxiety, craving, sweats,

hypertension, diarrhea, and fever. These nine substances act as agonists at the mu opioid receptors and exhibit a full and dose-dependent substitution for the discriminative stimulus effects produced by morphine. Thus, the pharmacological similarity and pattern of abuse of these nine substances to fentanyl are indicative of their potential to possess a psychic and physiological dependence liability similar to that of other mu opioid receptor agonist substances, such as heroin and fentanyl.

8. *Whether the Substance is an Immediate Precursor of a Substance Already Controlled Under the CSA*

*meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylecyclopropyl fentanyl are not immediate precursors of any controlled substance of the CSA as defined by 21 U.S.C. 802(23).

*Conclusion:* Based on consideration of the scientific and medical evaluation and accompanying recommendation of HHS, and on DEA's own eight-factor analysis, DEA finds that these facts and all relevant data constitute substantial evidence of potential for abuse of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylecyclopropyl fentanyl. As such, DEA proposes to permanently schedule these nine substances as controlled substances under the CSA.

**Proposed Determination of Appropriate Schedule**

The CSA establishes five schedules of controlled substances known as schedules I, II, III, IV, and V. The CSA also outlines the findings required to place a drug or other substance in any particular schedule, per 21 U.S.C. 812(b). After consideration of the

analysis and recommendation of the Assistant Secretary for HHS and review of all other available data, the Administrator of DEA, pursuant to 21 U.S.C. 812(b)(1), finds that:

(1) *meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl have a high potential for abuse. According to HHS, these nine substances are mu-opioid receptor agonists. These substances have analgesic effects, and these effects are mediated by mu-opioid receptor agonism. HHS states that substances that produce mu-opioid receptor agonist effects in the central nervous system (e.g., morphine and fentanyl) are considered as having a high potential for abuse. Data obtained from drug discrimination studies indicate that these nine substances fully substituted for the discriminative stimulus effects of morphine.

(2) FDA has not approved a marketing application for a drug product containing *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl for any therapeutic indication. In addition, DEA and HHS know of no clinical studies or petitioners claiming an accepted medical use in the United States. Therefore, these nine substances have no currently accepted medical use in the United States.<sup>8</sup>

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<sup>8</sup> Although there is no evidence suggesting that *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl have a currently accepted medical use in treatment in the United States, it bears noting that a drug cannot be found to have such medical use unless DEA concludes that it satisfies a five-part test. Specifically, with respect to a drug that has not been approved by FDA, to have a currently accepted medical use in treatment in the United States, all of the following must be demonstrated:

- i. The drug's chemistry must be known and reproducible;
- ii. there must be adequate safety studies;
- iii. there must be adequate and well-controlled studies proving efficacy;
- iv. the drug must be accepted by qualified experts; and
- v. the scientific evidence must be widely available.

(3) There is a lack of accepted safety for use of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl under medical supervision. Because these nine substances have no FDA-approved medical use and have not been investigated as new drugs, their safety for use under medical supervision is has not been determined. Therefore, there is a lack of accepted safety for use of these nine substances under medical supervision.

Based on these findings, the Administrator of DEA concludes that *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl, including their isomers, esters, ethers, salts, and salts of isomers, esters, and ethers whenever the existence of such isomers, esters, ethers, and salts is possible within the specific chemical designation, warrant continued control in schedule I of the CSA.<sup>9</sup>

**Requirements for Handling *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl**

As discussed above, these nine fentanyl-related substances are currently subject to a temporary scheduling order adding them to schedule I. If this rule is finalized as proposed, *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl

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57 FR 10499 (1992), *pet. for rev. denied, Alliance for Cannabis Therapeutics v. DEA*, 15 F.3d 1131, 1135 (D.C. Cir. 1994).

<sup>9</sup> 21 U.S.C. 812(b)(1).

fentanyl would be subject, on a permanent basis, to the CSA's schedule I regulatory controls and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, dispensing, importing, exporting, research, and conduct of instructional activities, including the following:

1. *Registration.* Any person who handles (manufactures, distributes, dispenses, imports, exports, engages in research, or conducts instructional activities or chemical analysis with, or possesses) *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl must be registered with DEA to conduct such activities pursuant to 21 U.S.C. 822, 823, 957, and 958, and in accordance with 21 CFR parts 1301 and 1312.

2. *Security.* *meta*-Fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl are subject to schedule I security requirements and must be handled and stored pursuant to 21 U.S.C. 821, 823, and in accordance with 21 CFR 1301.71–1301.76. Non-practitioners handling these nine substances also must comply with the screening requirements of 21 CFR 1301.90-1301.93.

3. *Labeling and Packaging.* All labels and labeling for commercial containers of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl must comply with 21 U.S.C. 825, and be in accordance with 21 CFR part 1302.

4. *Quota.* Only registered manufacturers are permitted to manufacture *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl

fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl in accordance with a quota assigned pursuant to 21 U.S.C. 826 and in accordance with 21 CFR part 1303.

5. *Inventory.* Any person registered with DEA to handle *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl must have an initial inventory of all stocks of controlled substances (including these substances) on hand on the date the registrant first engages in the handling of controlled substances pursuant to 21 U.S.C. 827, and in accordance with 21 CFR 1304.03, 1304.04, and 1304.11.

After the initial inventory, every DEA registrant must take a new inventory of all stocks of controlled substances (including *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl) on hand every two years pursuant to 21 U.S.C. 827 and in accordance with 21 CFR 1304.03, 1304.04, and 1304.11.

6. *Records and Reports.* Every DEA registrant must maintain records and submit reports with respect to *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl, pursuant to 21 U.S.C. 827 and 832(a), and in accordance with 21 CFR 1301.74(b) and (c) and 1301.76(b) and parts 1304, 1312, and 1317.

7. *Order Forms.* Every DEA registrant who distributes *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl must comply with the order form

requirements, pursuant to 21 U.S.C. 828 and 21 CFR part 1305.

8. *Importation and Exportation.* All importation and exportation of *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl must be in compliance with 21 U.S.C. 952, 953, 957, and 958, and in accordance with 21 CFR part 1312.

9. *Liability.* Any activity involving *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha*'-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl not authorized by, or in violation of, the CSA or its implementing regulations is unlawful, and may subject the person to administrative, civil, and/or criminal sanctions.

### **Regulatory Analyses**

#### *Executive Orders 12866 and 13563, Regulatory Planning and Review, and Improving Regulation and Regulatory Review*

In accordance with 21 U.S.C. 811(a), this proposed scheduling action is subject to formal rulemaking procedures done “on the record after opportunity for a hearing,” which are conducted pursuant to the provisions of 5 U.S.C. 556 and 557. The CSA sets forth the criteria for scheduling a drug or other substance. Such actions are exempt from review by the Office of Management and Budget (OMB) pursuant to section 3(d)(1) of Executive Order (E.O.) 12866 and the principles reaffirmed in E.O. 13563.

#### *Executive Order 12988, Civil Justice Reform*

This proposed regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of E.O. 12988 to eliminate drafting errors and ambiguity, minimize litigation,

provide a clear legal standard for affected conduct, and promote simplification and burden reduction.

*Executive Order 13132, Federalism*

This proposed rulemaking does not have federalism implications warranting the application of E.O. 13132. The proposed rule does not have substantial direct effects on the States, on the relationship between the National Government and the States, or the distribution of power and responsibilities among the various levels of government.

*Executive Order 13175, Consultation and Coordination with Indian Tribal Governments*

This proposed rule does not have tribal implications warranting the application of E.O. 13175. It does not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

*Regulatory Flexibility Act*

The Administrator, in accordance with the Regulatory Flexibility Act, 5 U.S.C. 601-612, has reviewed this rule and by approving it, certifies that it will not have a significant economic impact on a substantial number of small entities. On February 6, 2018, DEA published an order to temporarily place fentanyl-related substances, as defined in the order, in schedule I of the CSA pursuant to the temporary scheduling provisions of 21 U.S.C. 811(h). However, as explained in DEA's April 10, 2020, correcting amendment (85 FR 20155), Congress extended that expiration date until May 6, 2021, by enacting the Temporary Reauthorization and Study of the Emergency Scheduling of Fentanyl Analogues Act (Pub. L. 116-114, sec. 2, 134 Stat. 103) (Feb. 6, 2020). This temporary order was subsequently extended multiple times, most recently on December 29, 2022, through the Consolidated Appropriations Act, 2023 (Pub. L. 117-328, Division O, Title VI, Sec. 601), which extended the order until December 31, 2024. DEA estimates that all entities handling or planning to handle *meta*-fluorofentanyl,

*meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl have already established and implemented systems and processes required to handle these substances which meet the definition of fentanyl-related substances.

There are currently 108 registrations authorized to specifically handle the fentanyl-related substances as a class, which include one or more of the following substances: *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl as well as a number of registered analytical labs that are authorized to handle schedule I controlled substances generally. Some of these entities are likely to be large entities. However, since DEA does not have information of registrant size and the majority of DEA registrants are small entities, DEA estimates a maximum of 95 are small entities. Therefore, DEA conservatively estimates as many as 95 small entities are affected by this proposed rule.

A review of the 108 registrations indicates that all entities that currently handle *meta*-fluorofentanyl, *meta*-fluoroisobutyryl fentanyl, *para*-methoxyfuranyl fentanyl, 3-furanyl fentanyl, 2',5'-dimethoxyfentanyl, isovaleryl fentanyl, *ortho*-fluorofuranyl fentanyl, *alpha'*-methyl butyryl fentanyl, and *para*-methylcyclopropyl fentanyl also handle other schedule I controlled substances and have established and implemented (or maintained) systems and processes required to handle these substances. Therefore, DEA anticipates this proposed rule will impose minimal or no economic impact on any affected entities; and thus, will not have a significant economic impact on any of the 95 affected small entities. Therefore, DEA has concluded that this proposed rule will not have a significant economic impact on a substantial number of small entities.

*Unfunded Mandates Reform Act of 1995*

In accordance with the Unfunded Mandates Reform Act (UMRA) of 1995, 2 U.S.C. 1501 *et seq.*, DEA has determined and certifies that this action would not result in any Federal mandate that may result “in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any 1 year \* \* \*.” Therefore, neither a Small Government Agency Plan nor any other action is required under UMRA of 1995.

**List of Subjects in 21 CFR Part 1308**

Administrative practice and procedure, Drug traffic control, Reporting and recordkeeping requirements.

For the reasons set out above, DEA proposes to amend 21 CFR part 1308 as follows:

**PART 1308—SCHEDULES OF CONTROLLED SUBSTANCES**

1. The authority citation for 21 CFR part 1308 continues to read as follows:

Authority: 21 U.S.C. 811, 812, 871(b), 956(b), unless otherwise noted.

2. In § 1308.11:

a. Redesignate paragraphs (b)(73) through (92) as paragraphs (b)(82) through (101);

b. Redesignate paragraphs (b)(65) through (b)(72) as paragraphs (b)(72) through (79);

c. Redesignate paragraphs (b)(50) through (64) as paragraphs (b)(56) through (70);

d. Redesignate paragraphs (b)(47) through (49) as paragraphs (b)(51) through (53);

e. Redesignate paragraphs (b)(43) through (46) as paragraphs (b)(46) through (49);

f. Redesignate paragraphs (b)(33) through (42) as paragraphs (b)(35) through (44);

g. Redesignate paragraphs (b)(10) through (32) as paragraphs (b)(11) through (33); and

h. Add new paragraphs (b)(10), (34), (45), (50), (54), (55), (71), (80), and (81).

The additions read as follows:

**§ 1308.11 Schedule I.**

\* \* \* \* \*

(b) \* \* \*

(10) *alpha'*-Methyl butyryl fentanyl (2-methyl-*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylbutanamide).....9864

\* \* \* \* \*

(34) 2',5'-Dimethoxyfentanyl (*N*-(1-(2,5-dimethoxyphenethyl)piperidin-4-yl)-*N*-phenylpropionamide).....9861

\* \* \* \* \*

(45) 3-Furanyl fentanyl (*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylfuran-3-carboxamide).....9860

\* \* \* \* \*

(50) Isovaleryl fentanyl (3-methyl-*N*-(1-phenethylpiperidin-4-yl)-*N*-phenylbutanamide).....9862

\* \* \* \* \*

(54) *meta*-Fluorofentanyl (*N*-(3-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)propionamide).....9857

(55) *meta*-Fluoroisobutyryl fentanyl (*N*-(3-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)isobutyramide).....9858

\* \* \* \* \*

(71) *ortho*-Fluorofuranyl fentanyl (*N*-(2-fluorophenyl)-*N*-(1-phenethylpiperidin-4-yl)furan-2-carboxamide).....9863

\* \* \* \* \*

(80) *para*-Methoxyfuranyl fentanyl (*N*-(4-methoxyphenyl)-*N*-(1-phenethylpiperidin-4-yl)furan-2-carboxamide).....9859

(81) *para*-Methylcyclopropyl fentanyl (*N*-(4-methylphenyl)-*N*-(1-phenethylpiperidin-4-yl)cyclopropanecarboxamide).....9865

\* \* \* \* \*

### **Signing Authority**

This document of the Drug Enforcement Administration was signed on April 3, 2023, by Administrator Anne Milgram. That document with the original signature and date is maintained by DEA. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DEA Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of DEA. This administrative process in no way alters the legal effect of this document upon publication in the Federal Register.

**Scott Brinks,**  
Federal Register Liaison Officer,  
Drug Enforcement Administration.

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